

TETTENHALL
URBAN SANITARY AUTHORITY.



MEDICAL OFFICER OF HEALTH'S
REPORT FOR 1895.

THE HOUSE THAT JACK BUILT,
WOLVERHAMPTON.

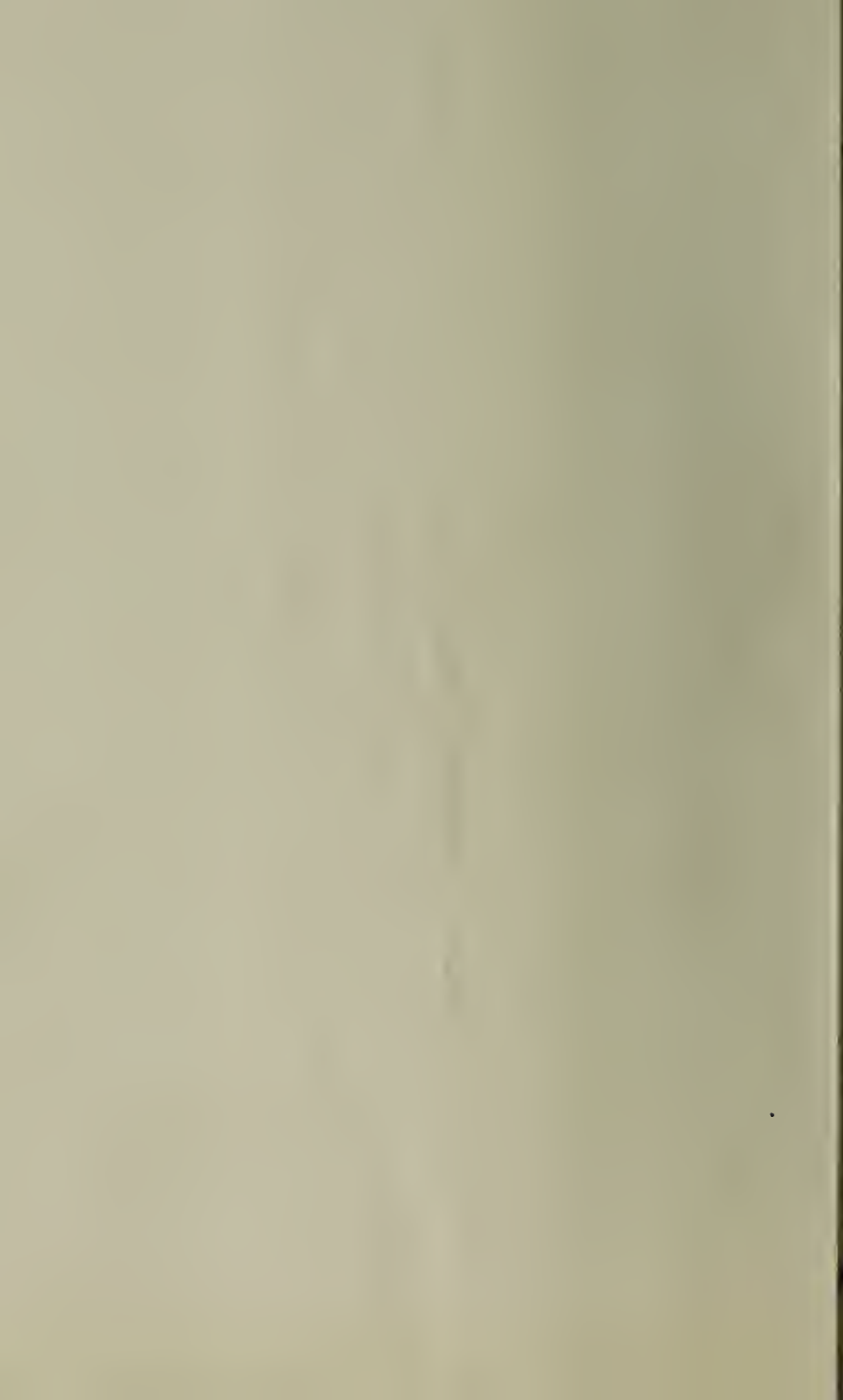
Mar. 12.

1876.

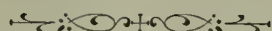
Dear Sir

I enclose a copy of
my report for 1875 in
accordance with your
request.

I am Dear Sir
Yours sincerely
W. H. J. Armitage



TETTENHALL DISTRICT COUNCIL.



MEDICAL OFFICER OF HEALTH'S REPORT FOR 1895.

12th ANNUAL REPORT.

Population Census, 1881	...	...	...	...	4636
" " 1891 (June)...	...	...	...	...	5145
Population Estimated by natural increase to June, 1895					5385
Area in Statute Acres	...	...	...	...	1220
Inhabited Houses, 1881	...	...	...	...	940
" " 1891	...	...	...	...	1056
Tettenhall Local Board Constituted	...	...	...	...	1883
Adoption of Bye-Laws	...	...	...	...	1887
" Notification Act	...	...	...	...	1889
Sewerage Works commenced 1890, finished	...	...	...	...	1892
Isolation Hospital provided	...	...	...	...	1891

TABLES.

A—Tables of Deaths.

B—Table of Population, Births, and New Cases of Infectious Diseases.

C—Table of Epidemics from 1883 to 1895.

D—Table of Scarlet Fever.

MEDICAL OFFICER OF HEALTH'S REPORT FOR 1895

To the Chairman of the Tettenhall District Council.

Sir,

One hundred and thirty-two Births and One hundred and ten Deaths were registered during the year.

In June, the population of your district was estimated by natural increase to be 5,385.

Therefore the Birth Rate for the year will be 24·5, and Death Rate 20·4.

The Infant mortality is 121·2 per 1000 registered Births.

Year.	Population.	Births.	Deaths.	Birth Rate.	Death Rate.
1891	5145	135	62	26·2	12·0
1892	5239	128	68	24·2	12·9
1893	5314	154	77	28·9	14·4
1894	5344	142	69	26·5	12·9
1895	5385	132	110	24·5	20·4

Death is attributed to the following causes: Scarlet Fever, 1; Diphtheria, 15; Croup, 2; Puerperal Fever, 1; Whooping Cough, 1; Diarrhoea, 2; Phthisis, 4; Bronchitis and Pneumonia, 22; Heart Disease, 6; Influenza, 3; all other Diseases 53; Total 110.

Infectious Diseases. Eighty-nine cases of Infectious Diseases were notified, viz:—Scarlet Fever, 24; Diphtheria, 60; Typhoid, 2; Puerperal Fever, 1; Erysipelas 2.

Diphtheria. Till 1892 very few cases of Diphtheria came to my knowledge in our District. In that year six cases were notified, and in the following year one. In 1894 twelve cases in eight houses were reported, and of these five were fatal. Three cases occurred at Wightwick, two in Nursery Walk and Lime Street, two in the Lower Street, one imported from Penn Fields at Tettenhall Wood, and four at the Old Workhouse. In 1895 sixty cases were notified with fifteen deaths in forty households.

On February 1, two children contracted Diphtheria in Nursery Walk, and in the following week three Fever cases occurred at Stockwell End and Aurtherley Lane. On February 2, three more cases were notified in Aurtherley Lane.

On March 10, a case was reported at Tettenhall College after that date the infection lay dormant till May 7, when four children were attacked in Aurtherley Lane. During June there were six notifications from the same locality.

In July and August Diphtheria appeared at Finchfield, five children being attacked in three houses, and at the same time three fresh cases occurred in Aurtherley Lane, in houses that had been already infected.

On October 5, a solitary case of Diphtheria was reported in the Old Hill. There had been a case of Diphtheria at the same house in July, 1894.

The Epidemic at Tettenhall Wood commenced on October 12. A little girl with a trivial sore throat, which afterwards proved to be a mild case of Diphtheria communicated the contagion to two sisters and a brother. In a few days eleven children and three adults in Compton and Tettenhall Wood were laid up with the Disease. Early in November there were three fresh cases, and then there was a lull in the epidemic till a case was notified at Compton on November 25.

The patient was a girl of 11, and had been ill some days, but had not been seen by a Doctor till a few hours before her death. Her sister who contracted Diphtheria later was in service at a house in Wolverhampton, where the children were suffering from sore throats, and some near relations of these children had recently had Diphtheria.

During December ten cases of Diphtheria was reported all at Tettenhall Wood and Compton, and at the beginning of 1896 we have still cases cropping up in the same neighbourhood.

It will be seen by this summary that Diphtheria first appeared on February 1, in Nursery Walk, and up to July 22 twenty-three cases occurred, twenty-two of them being in the Parish of Tettenhall.

Out of the twenty-two cases, eighteen were reported from the Lower Street and Autherley Lane, a locality which is unhealthy from the neighbourhood of the Smestow Brook and the disposal of the contents of middens in the gardens, in which the soil, already moist, is unable to cope with the amount of sewage heaped in it year after year.

On October 5, an isolated case was reported from Tettenhall.

The remaining thirty-seven cases happened in the Parish of Tettenhall Wood, viz : fourteen at Tettenhall Wood, fourteen in the Village of Compton and Henwood Lane, three about the Compton Holloway and six at Finchfield.

Children attending the Tettenhall Wood and Finchfield Schools, but living outside our district also contracted the disease.

On October 23, the Tettenhall Wood and Finchfield Schools were closed under the following circumstances :—

In the Mixed Department at Tettenhall Wood, 268 children were on the books. On the morning of the 23rd of October, 71 children were absent, 55 from illness, including 7 known cases of Diphtheria and 16 from other causes.

64 children were absent from the Infants' School, 19 of these from sickness in their families or ill themselves.

At Finchfield 58 were on the books, 23 away, 9 of these ill.

On November 24, the Schools were re-opened, as there had been no case of Diphtheria reported since November 14.

In the interval the Schools had been disinfected, scrubbed and whitewashed, and on inspection no palpable sanitary defects were evident.

It is true the moisture from the closets escaped by a process of soakage into a dumb well filled with brick ends, but if water closets were provided the water would freeze in winter owing to the situation of the closets and probably give rise to evils greater than those remedied.

Bearing in mind the somewhat flagrant case of neglect notified on November 25, no fresh case of Diphtheria was reported till December 3, from that date till the 9th eight cases of Diphtheria occurred in rapid succession, four at Tettenhall Wood and four at Compton, two of the former centres of infection being in close proximity to the Schools.

Owing to the number of children absent, many with sore throats, the Schools were again closed on December 9. The snow was melting, and with wet shoes and cold feet the children would have been in a peculiarly favourable condition to take the prevalent infection.

To the time of writing this report the Schools are still closed, cases keeping cropping up at Wightwick, at Tettenhall Wood and at Compton.

The position is one of great difficulty for the Vicar, the School Managers, and the Sanitary Authority. We have to deal with a contagion which is uncertain as to its vitality and insidious in its course. The virus may kill the victim whom it attacks or cause effects so slight as to be unrecognised, and it has been proved that the bacillus can effect its lodgment in the throat, of a person whom it does not affect and yet be the source of disorder when communicated to others.

Whether the infection is deadly or trivial depends on the susceptibility of the individual. Children of tender age and those living under depressing conditions are more prone to be affected than adults or warmly clad and well fed children, living under conditions that the poor cannot command. Faulty sanitary surroundings, chill, want, worry and the various forms of internal and external misery reduce vitality and render the ultimate constituents of the body less capable of resisting the encroachments of disease germs which everywhere surround us and which we constantly breathe and swallow. As Prof. Ray Lancaster has shewn in his most interesting Lectures there is constant war between protoplasm and bacteria, and unless there is an abraded surface or flagging and weakly protoplasm the body is constantly resisting successfully the inroads of disease.

Unfortunately the conditions favourable to the generation of disease are common enough in a complex life, while the means of communicating infection are increased each year with augmented facilities for intercourse, and the aggregation of children in great educational centres.

If it were more popularly recognised that all infectious diseases are the offspring of previous cases like unto themselves and not the result of spontaneous generation, public opinion would condemn the prevalent custom of the poor of heedlessly visiting sick persons. The custom is partly prompted by the kindest motives, and partly to supply the material for conversation, in which the discussion of ailments is the pabulum not entirely restricted to the poor.

The old fashioned doctrine which holds that a Diphtheria patient is not infectious after the disappearance of the often characteristic membrane is unfortunately too prevalent. The infection continues long after the disappearance of any membrane and even the usual period of quarantine and isolation of 4 weeks after an attack may be too short.

Doctors Davies and Dawson, Medical Officers of Health for Bristol, give instances in which Diphtheria patients have communicated the disease after two months. They shew that the only precise means of determining the immunity from infection of a Diphtheria convalescent is the laboratory test. The secretion from the throat is rubbed off and cultivated in a medium of broth or blood serum. In 24 hours the Diphtheria bacillus if present will show itself in colonies which can be stained and demonstrated by the microscope.

At Bristol Medical practitioners are supplied at a small cost with two tubes containing a swab and Agar Broth, and the secretion examined at the Health Offices, and Dr. Codd the House Physician at the Wolverhampton General Hospital tells me that before he discharges a case of Diphtheria the secretion of the throat is examined by experts with the object of determining whether the patient is free from infection.

Certain considerations more or less connected with the present epidemic have been prominently brought before the Council at its Monthly Meetings. They chiefly apply to Insanitary conditions existing in the District, and the responsibility of the Sanitary Authority with regard to School closure.

The Insanitary conditions will be dealt with under the head of Nuisances, but the question of School Closure will be considered here.

It has been proved that the congregation of children in Public Elementary Schools has considerably augmented the means of spreading Infectious Diseases, and as the Education Acts work more perfectly the responsibilities of Sanitary Authorities increase.

The most potent means of controlling infection is an Isolation Hospital, as home isolation with limited accommodation and defective nursing is unsatisfactory both to the patient and to the community. In dealing with Scarlet Fever and Small Pox, we have means for Isolating first cases.

With Diphtheria it is different. The exclusion of particular scholars and the closure of Schools are the two measures for the centre of the disease which the Sanitary Authorities can command. The exclusion of scholars is the usual practice of your District. School notices are issued on a triple form, (one to the parents, one to the School, and the counterfoil for the information of the Sanitary Authority) in which children are ordered to be kept away from School till they cease to be in an infectious condition.

In a population like ours there is no difficulty in securing Medical advice, and the Sanitary Authority places confidence in the judgment of the Doctor in attendance. He decides when the patient is free from infection, and the Council can rely on his friendly co-operation in limiting the extension of disease.

The system has worked very well, except in the case of Diphtheria. With the sanction of the Council I would propose that the period of exclusion from School of children afflicted with Diphtheria and other children in the same house, and where it is necessary, in neighbouring houses extend to six weeks, unless bacteriological examination proved the absence of infection at an earlier date.

Messrs. Ferris of Bristol, supply the necessary apparatus for I believe fourpence, and by arrangement with a Society for clinical research, the examination can be made for a nominal sum.

After reading the Milroy Lectures by Dr. Thorne Thorne, which are embodied in the memorandum of the Local Government Board, July 1894. On the closing of Elementary Schools and the exclusion therefrom of particular children to prevent the spread of disease, I come to the conclusion that the closure of Schools is not applicable to our District in the matter of Diphtheria.

It is the *Facilis decensus Averno* of Sanitary Authorities, but the careful consideration of the whole passage merits their attention. "To retrace your steps and escape to the upper air, this is the work, this is the toil."

By closing a Public Elementary School you diminish a public danger and meet with common approval.

But you dislocate the Educational work of the District, and let children run loose, who at School are learning obedience and discipline and the way to acquire knowledge which may be useful to them in after life. Their opportunities of meeting are not materially diminished except in the case of scattered villages, and many go to other schools within or outside the district and render the object for which the schools was closed ineffectual.

When the School is re-opened there is almost a certainty of a fresh reappearance of the disease. This is due

- (i) To the uncertain vitality of the Diphtheria infection.
- (ii) The recrudescency of the disease.
- (iii) And the uncertainty of branding a case as Diphtheria except by Bacteriological examination.

These difficulties may be met by individual exclusion, in which the Sanitary Authorities should accept the responsibility of determining infection and the duration of quarantine through its Medical Officer, who should be instructed to take cultivations and submit them to a competent authority in all cases where the freedom of infection is doubted.

The presence of Diphtheria to-day is a question which will have to be recognised each year till the soil is used up, and it would be better to accept the disease now as a public danger, and regulate its encroachments by authority than leave it to chance and the future.

I beg to submit to the Council—

- (i) That provisions should be made for the Isolation of Diphtheria in a Hospital.

(ii) In cases treated at home a six weeks limit of exclusion from School must be enforced for all children from the infected family, but if the case be removed to Hospital 14 days, quarantine must be observed.

It is desirable when epidemic disease is prevalent that parents should be allowed some discretionary power in sending their children to School.

I submit these considerations in a somewhat precise form, for the consideration of members of the Council as only the Annual Report is printed, and the Local Government Board has left it to our discretion to advise the remedial measures.

Two points deserve mention with regard to Diphtheria.

One is the practice of cleaning slates by spitting on them. This is a direct and obvious method of spreading the Contagion of Diphtheria.

The other is the inhalation of Sewer Gas as a means of communicating Diphtheria. It has been already noticed in this report that Sewer Gas may affect the health, so as to render the system more receptive of infection. But it is neither proved that offensive emanations contain the Diphtheria germ, nor that the smells in the street, diluted by fresh air affects the health to the extent of Sewer Gas escaping into the houses. In my report for 1893, I drew attention to the fact that when the house is shut up at night the escape of Sewer Gas into the house is often the result of natural laws. In the Bristol Report 7 specimens of likely filth was unsuccessfully examined for the Diphtheria bacillus.

Some acknowledgment should be made to the Board and Medical Staff of the Wolverhampton General Hospital for their kindness in receiving the cases of Diphtheria from Tettenhall, in which isolation was impossible through the distressing poverty of the parents.

Scarlet Fever. Twenty Four (24) cases of Scarlet Fever were notified, of these 9 were treated in the Isolation Hospital. There was one death.

(i) The first case reported on February 1, was a girl at Compton, whose sister had suffered from Scarlet Fever at the end of 1894, she was removed to the Infectious Hospital.

(ii) The next day another case was notified from Finchfield, at a house where there had been Scarlet Fever in the previous December.

(iii) On March 22, a case was notified from Stockwell End. The patient's brother had been admitted to the Infectious Hospital, on November 3, 1894.

(iv, v) On May 4 and 28, two cases occurred at Tettenhall, one at the Old Hill, the other at Ashley Mount, the latter being removed to the Hospital.

(vi, vii) On May 29, a boy of 7 contracted Scarlet Fever in Yew Tree Lane, the Wergs, and on June 5 communicated the infection to his sister.

(viii, ix, x) From July 2 to 17, a group of three cases occurred in the neighbourhood of the Lower Street, Tettenhall. One in the Lower Street and the other in Autherley Lane were removed to the Hospital, while a boy at Claregate was treated at home.

(xi) On July 20, a child at Orme's Lane, Tettenhall Wood, who attended a School in Wolverhampton, was laid up with Scarlet Fever, she was admirably isolated at home.

(xii, xiii) On July 23 and 24, two children in Lime Street, Tettenhall, were attacked with Scarlet Fever, and removed to the Hospital on successive days.

(xiv, xv, xvi) On August 24, three children at Catherine Terrace, Finchfield, were reported to be attacked. The first case was unrecognised till a later stage of the disease.

(xvii, xviii) On September 7, a child in the Lower Street contracted Scarlet Fever, and died on the 11. On September 15, a neighbour's child was attacked and removed to the Hospital.

(xix) On September 16, a child who had suffered from Diphtheria in February was attacked with Scarlet Fever, and removed to the Hospital.

(xx, xxi) On the same date two children with Scarlet Fever were seen in the Lower Street. They were treated at home.

(xxii) On September 25, a child was removed to the Hospital from Horsehills Cottage, Finchfield.

(xxiii) On October 6, a notification was received which by inadvertence ought to have been sent on September 15, that the brother of case xvii was suffering from Scarlet Fever in the Lower Street.

(xxiv) On October 16, a girl was reported to have Scarlet Fever in Lime Street, Tettenhall.

For the rest of the year we were free from Scarlet Fever, but early in 1896 it has appeared in Tettenhall, in the Lower Street, on the Upper Green, and at Stockwell End.

It is satisfactory to note that with each succeeding year the working population are more willing to accept the benefits of the Isolation Hospital.

Table D gives particulars as to the cost and work of our means for Isolating Scarlet Fever.

Typhoid. Two cases of Typhoid occurred, and of these one was treated in the General Hospital.

Puerperal Fever. A fatal case of Puerperal Fever was reported in January. At present widely differing diseases are described as Puerperal Fever. An infective peritonitis may be the result of contagion from the hands of the Doctor or Nurse, or from conditions existing before pregnancy.

Erysipelas is the name often given to an inflammation caused by a collection of matter, such as an abscess at the root of a tooth.

For the instruction of the Sanitary Inspector in issuing School Notices I subjoin the following table with one modification borrowed from Dr. Reid's text book on Practical Sanitation.

Disease.	Quarantine required after last exposure to Infection	Shortest period of Isolation after an attack.
Small Pox	18 days	6 weeks ..
Chicken Pox	18 days	3 weeks ..
Scarlet Fever	14 days	6 weeks ..
Diphtheria .. .	14 days	6 weeks ..
Measles	16 days	3 weeks ..
German Measles .. .	16 days .. .	3 weeks ..
Whooping Cough .. .	21 days .. .	6 weeks ..
Typhoid Fever .. .	21 days ..	4 weeks ..
Typhus .. .	21 days .. .	4 weeks ..
Mumps	24 days	4 weeks ..

Nuisances. 315 Nuisances were reported, and 227 remedied. The summary of work done by the Sanitary Inspector contains the following information.

Structural defects in buildings were remedied in 12 instances; 4 cases of Overcrowding were dealt with; Nuisances from Ashpits and Privies abated in 28, and from Foul Deposits in 25 instances; 9 Water Closets were made good; of 29 Defective Drains 28 were remedied; and Nuisances from Animals abated in 8 instances.

Water Supply. 10 samples of Water were taken for Analysis and 8 condemned. The Water Mains have been extended 857 yards within the District, and 44 houses have had tap water laid on during the year.

Sewerage. Mr. Mortimer reports that 126 houses were connected with the Sewers during the year, making a total of 856 houses connected with the Sewerage system.

The Smestow Brook was again cleaned in the Autumn, from Wightwick to Heath Town, at the joint expense of Wolverhampton, Heath Town and Tettenhall.

Offensive emanations of Sewer Gas have been the subject of complaint at the higher points of the Sewerage system. The Council has fixed a Deakin's Sewer Gas Destructor at Stockwell End and a Pipe Ventilator at School Road, Tettenhall Wood. Six more Ventilators are in the course of erection.

Mr. Mortimer draws attention to the storm on Sunday, March 24. In the course of a few minutes many large trees were blown down, twenty of these blocking the high roads.

The Inspectors of Nuisances have made 22 inspections of Dairies and Milkshops ; 42 of Cowsheds ; 26 of Bakehouses ; and 20 of Slaughterhouses.

27 houses and 4 Schools have been disinfected.

In spite of the introduction of a Sewerage system which conveys a large proportion of the Sewerage of the District to be dealt with at a distance, Privy Middens continue to flourish. It is to be found in the class of property which requires most attention from the Sanitary Authority. The Midden is usually badly built, rarely roofed, and infrequently cleansed. The sop-ping contents percolate into the neighbouring soil, and when the pit is emptied the contents are deposited in the little garden where the soil is already saturated with Sewage and often wet.

A return of all Privy Middens should be made to the Sanitary Committee, and each case dealt with individually on the report of the Inspector of Nuisances. Where Water Closets or proper Earth Closets cannot be substituted, the Midden should be reconstructed and periodically cleansed by the Sanitary Authority. This is especially necessary in the valley of the Smestow Brook.

The year 1895, has been a calamitous year of Epidemic Diseases, but ours has not been an isolated experience.

Dr. Thorne Thorne has shown that the extension of Diphtheria keeps pace with the extension and perfection of the Education Act, and I believe the congregation of children in Schools, the facilities of transit in public vehicles, the concourse of people at places of amusement, and the increasing necessity of social life, as opposed to the old home life, are more potent causes in the extension of Disease than a deficient rainfall or particular innovations as to the disposal of Sewage or Waste Water.

I am, Sir,
Your obedient Servant,

February 25, 1896.

W. H. T. WINTER.

Annual Report of Medical Officer of Health, 1895.

URBAN SANITARY DISTRICT OF TETTENHALL.

B. New Cases of Infectious Sickness coming to the knowledge of the Medical Officer of Health during the year 1895, enumerating the Number of Houses Infected, the Total Number of Deaths, also the Number of Cases Treated and the Deaths that occurred in Infectious Hospitals.

	Smallpox.	Scarlatina.	Diphtheria	Membranous Croup.	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Measles.	Whooping Cough.
Houses Infected		17	40	1		2			1		2		
Total cases reported among persons belonging to District	Under 5...	8	22	2									
	5 & upwds.	16	36			2			1		2		x
Total deaths reported among persons belonging to District	Under 5...		7	2									
	5 & upwds.		8						1				
Cases treated in Hospital among persons belonging to District	Under 5...	3	1*										
	5 & upwds.	6	3*			1*							
Deaths occurring in Hospital among persons belonging to District ..	Under 5...												
	5 & upwds.												

x Prevalent.

* Treated in the Wolverhampton and South Staffordshire General Hospital.

A COMPARATIVE TABLE OF EPIDEMICS FROM 1883—1895.

TABLE C.

	Small-Pox.	Scarlet Fever. SEE TABLE F.	Diphtheria.	Typhoid.	Puerperal Fever.	Measles.	Epidemic Influenza.
Year.	No. of Cases	No. of Cases	No. of Cases	No. of Cases	No. of Cases	No. of Cases	No. of Cases
1883	7	5	1	1		2	
1884	1	6		1	xx		
1885				1	5	5	
1886			1	1	115	5	
1887		1	1	8	34	5	
1888		2		1			
1889*							
1890		16		3	49	3	xx
1891		17		3	86	1	xx
1892		14		6	x	1	xx
1893		29	6	6	3		x
1894	1	46	1	2			
1895		24	12	5	1	3	
			60	15	1		x
TOTALS.	8	160	82	34	5	2	3
	1	4	23	4	332	21	

NOTE.—A few cases **x**. Prevalent **xx**. Very Prevalent **xxx**.

*Adoption of Infectious Diseases Notification Act.

SCARLET FEVER.

TABLE D.

Year.	Rent of Hospital.	Charges for Board and Treatment in Hospital.	No. of days charged @		No. of Patients in Hospital.	Deaths in Hospital.	Patients not treated in Hospital.	No. of Deaths in Patients not treated in Hospital.
			1/6	2/6				
1892	.. £40	.. £16	2 6	.. 215	.. 4	.. —	.. 10	.. —
1893	.. £40	.. £54	10 6	.. 512	.. 13	.. —	.. 16	.. —
1894	.. £40	.. £61	17 6	.. 728	.. 17	.. 2	.. 29	.. 1
1895	.. £40	.. £34	14 0	.. 431	.. 9	.. —	.. 15	.. 1

